EXHIBIT

35

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

BRAUN GMBH,	)	
	)	
Plaintiff,	)	
	)	
v.	)	**Civil Action No. 03-1248-WGY**
	)	
RAYOVAC CORPORATION,	)	**HON. WILLIAM G. YOUNG**
	)	
Defendant.	)	
	)	

FIRST EXPERT REPORT OF SAMUEL R. PHILLIPS, PE

1. I am an independent consulting engineer. I have been retained as an expert in this case by Rayovac Corporation ("Rayovac") to opine as to whether certain of Braun Gmbh's patents are invalid. Specifically, I have been asked to review U.S. Patent Nos. 5.649,556 ("the '556 patent") and 5,711,328 ("the '328 patent") (collectively "the patents-in-suit").

I. BACKGROUND AND QUALIFICATIONS

2. My background and qualifications are attached as Tab 1.

3. I received the degrees of Bachelor of Science in Engineering and Master of Science in Mechanical Engineering from the California Institute of Technology ("Caltech").

4. After receiving my degrees, I worked in industry for over 40 years and have been involved in the product design and development, designing or assisting the design of hundreds of systems and devices. I have received many United States patents in connection with my design and

development work, as detailed on my curriculum vitae. Pertinent to this litigation, my design work includes:

- analyzing manufacturing processes and proposing design changes for the implantable artificial heart;
- designing an extremely successful plastic submersible pump;
- improving a mass flowmeter;
- specifying systems for the manufacture of ink-jet printing cartridges;
- improving lubricating and sealing in ophthalmic instruments;
- designing aspirating heated probes;
- designing, prototyping, and testing a small-scale vortex separator for waste-water treatment;
- designing pumps, filters, and piping systems for the aerospace industry;
- designing flow nozzles and associated piping for a free-jet fluorometer;
- preparing flow schematics and component layouts for a system of thermal baths for instruments;
- designing vacuum reaction chamber and self-cleaning filter housing for the manufacture of nanoscale fine powders; and
- designing and developing a silent air pump to assist infant breathing.

5. Since 1985, I have been an independent consulting engineer. During that time, I have used my education and experience to assist over 120 clients over a wide variety of topics.

6. I have provided testimony in other matters over the past 4 years. These matters are listed at Tab 1.

7. My compensation is $425.00/hour through FTI/Techlicon .

II. SCOPE OF STUDY AND OPINION

A. Documents And Information Considered In Forming Opinions

8. The following opinions and analyses are based upon a review of the patents-in-suit and the file histories for the patents-in-suit.

9. In forming my opinions, I have relied upon my education, experience, and training.

10. I also reviewed and relied upon deposition testimony taken in this action.

11. I further reviewed and relied upon prior art references discussed further below.

12. I also reviewed and relied upon pleadings in this action including certain interrogatory responses by Braun.

13. A list of the information I considered in forming the opinions in this report is attached as Tab 2. Exhibits cited herein are attached as Tab 3.

B. Exhibits To Be Used As A Summary Or Support For The Opinions

14. At trial, I expect to rely upon materials and documents produced in this litigation and various other documents that the parties have exchanged, such as interrogatory responses. I also may rely upon visual aids and

demonstrative exhibits that I may prepare or have prepared including, by way of example, figures and excerpts from the patents-in-suit and/or prior art patents, claim charts, deposition testimony, diagrams and other graphical presentations describing the technology relevant to the patents-in-suit and the design, operation and functions of the patents-in-suit and/or prior art patents. These materials may include or involve one or more of the items identified on Tab 3.

C. Questions Asked

15. I have been asked to consider and provide certain background regarding the patents-in-suit. I have also been asked my opinions in response to the following questions:

a. What is the level of ordinary skill in the art to which the patents-in-suit relate? I understand that various cases have stated that relevant factors are: (1) the educational level of the inventor; (2) types of problems encountered in the art; (3) prior art solutions to these problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.

b. Would one of ordinary skill in the art be reasonably apprised as to the scope of the "cradle structure" claim elements, as construed by the Court? I understand that, if a claim element provides no guidance as to what is and what is not covered by the claim, it is said to be "indefinite."

c. Do the specifications of the patents-in-suit clearly allow one of ordinary skill in the art to recognize that the inventor invented what is claimed? I understand that a patent is invalid for want of "written description" if the answer to the preceding questions is negative.

d. Do the specifications of the patents-in-suit introduce subject matter that would not have been understood by one of ordinary skill in the art in Braun's German priority applications?

e. Did the inventor of the patents-in-suit fail to disclose the best mode contemplated for practicing the claimed invention(s)? I understand that one of ordinary skill in the art must be able to recognize an inventor's "best mode" from the patent specification.

f. Do the patents-in-suit name all the inventors for the alleged inventions of the patents-in-suit?

g. Does any prior art show each and every limitation of any of the patent claims asserted by Braun? I understand that a prior art patent or other document that shows each and every limitation of a patent claim is said to "anticipate" that claim.

h. Would any difference between the prior art and any of the patent claims have been considered nonobvious to one of ordinary skill in the art? I understand that routine differences between a patent claim and the prior art results in the patent claim being invalid as "obvious."

D. Summary of Opinions

16. In my opinion, all of the asserted claims of the '556 patent are invalid for anticipation, obviousness, indefiniteness, lack of an adequate written description, improper introduction of new matter, failure to join an inventor, and/or failure to disclose the best mode.

17. In my opinion, all of the asserted claims of the '328 patent are invalid for anticipation, obviousness, indefiniteness, lack of an adequate written description, improper introduction of new matter, failure to join an inventor, and/or failure to disclose the best mode.

18. At trial, I anticipate giving a basic tutorial that will assist the Court and/or the jury in understanding the technology applicable to the patents-in-suit and the prior art.

III. Background

A. Cleaning Systems

19. Systems for cleaning discrete objects have been well known since near the turn of the previous century. Moreover, engineers (and lay people) are also familiar with automating systems for washing and drying objects. Cleaning systems with which I am well familiar include systems for cleaning tools, jewelry, etc. A simple example of a cleaning system is the washing of a car. Originally, people washed cars with a bucket of soapy water and a towel. Eventually, car washing (and drying) became an automated process for the convenience of consumers. Likewise, the washing and drying of dishes too became an automated process long ago. The concepts of making the washing process convenient was well known to one of ordinary skill in the art by the early 1990's.

20. Particular to this suit, cleaning systems for shavers have been long known. The asserted claims recite several features that Braun asserted are novel including a "cradle," which was tentatively construed by the court to mean to "a structure adapted to support or receive a shaving head of a shaving apparatus," a cleaning fluid container, a fluid pump, a drying device such as a fan impeller, and a bracket. However, each of these structures have existed for a long time, and have been used to clean the shaving head of a shaving apparatus.

21. Electric shavers were introduced into the market in approximately 1929. In 1932 and 1933, U.S. patents issued to I. J. Johnston and G. E. Stewart

covering devices to sterilize electric shavers. (Exs. 1 & 2.) These devices included structures adapted to support and receive the head of a shaving apparatus during the sterilization process. Similar patents teaching improved devices for sterilizing and cleaning electric shavers issued to F. L. Irish et. al and J. Schultz in 1946. (Exs. 3-4.)

22. In 1957 and 1961, two patents issued to the same inventor, E.J. Loeffler, for related automated devices to receive, support, and clean the head of an electric shaver. (Exs. 5 & 6.) Four years later, in 1965, U.S. Patent No. 3,172,416 issued to H.H. Simmons. (Ex.7.) This patent is referenced in the specification of the asserted Braun patents and served as the basis for the subject matter claimed in the Braun patents. In 1967, 1968, and 1970, three patents issued on related devices for cleaning and sterilizing barber tools. These patents to McKiney *et. al*, G.W. Davies, and H.R. Maatz disclosed automated devices for cleaning the head of a shaver. (Exs. 8, 9, and 10.) As discussed below, these patents disclose each and every element of the asserted claims of the patents-in-suit.

23. Indeed, Mr. Hoeser of Braun produced a timeline detailing the history of shaver cleaning systems at Braun. (Ex. 11.) In addition to the prior art discussed here and further below, the timeline demonstrates that all of the elements claimed in the patents-in-suit were actually implemented long before the patents-in-suit were filed.

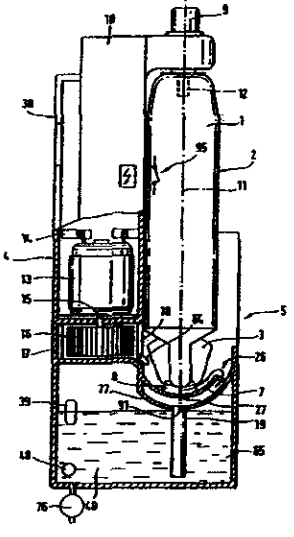
24. Finally, application claim 1 of the '328 patent provided for (1) a cradle structure as claimed; (2) a feed device as claimed; and a (3) a cleaning

fluid container with a fluid level below the cradle structure as claimed. ('328 Patent File History, Ex. 12.) The USPTO took the position and Braun acquiesced that the preceding elements were known in the prior art. (Ex. 12 at B000335.) In order to obtain patent claims, Braun needed to argue that various additional elements were new. As discussed further below, these additional elements were all disclosed in the prior art patents.

B. Braun's Cleaning System

25. Braun is presently asserting patent rights over a system for cleaning shavers with liquid. In general, Braun claims to have invented a cleaning device including an open trough into which a shaver head is inserted. Cleaning fluid is held below the trough and is pumped into the trough to give the shaver head a bath. Following the bath, the shaver head is dried. Figure 1 of the U.S. Patent No. 5,649,556 ("the '556 patent"), a schematic representation of Braun's cleaning system, is reproduced below. As discussed in greater detail in sections of my report, Braun claimed various aspects of this cleaning device, none of which are new.

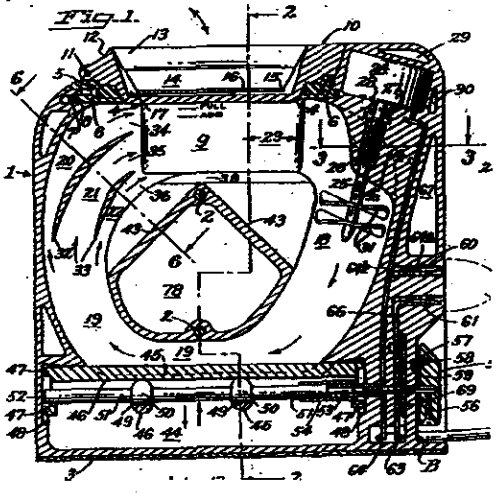
Fig. 1



C. U.S. Patent No. 5,649,556

26. The '556 patent is generally directed at a cleaning system for shavers. (Ex. 13.) More specifically, the '556 patent purports to improve upon U.S. Patent No. 3,172,416 ("the Simmons patent") filed in 1963. (Ex. 7.) The cleaning system of the Simmons patent is reproduced immediately below. The specification of the '556 patent describes the Simmons patent as follows:

> [A] cleaning device ... in which the cutter portion [of a dry shaver] is cleaned by a cleaning fluid directed for this purpose through fluid channels provided in the casing. For the full duration of the cleaning cycle, the cutter portion is seated in a cradle which is provided in the upper part of the casing and is at all times filled to capacity with a cleaning fluid circulating therethrough. (Ex. 7, Col. 1, lines 26-33.)



27. The cleaning system of the Simmons patent operates such that fluid is fed directly into the "cradle" in which the shaver head sits, and the shaver is then given a bath. (Ex. 7, at Figure 1, Col. 6, lines 22-70.) After the bath

is completed, the shaver is removed and allowed to dry in a separate trough included with the cleaning system. (Ex. 7, at col. 6, lines 22-70.)

28. The '556 patent purports to improve upon two disadvantages of the Simmons patent. First, the cleaning fluid container of the Simmons patent was not a removable and replaceable cartridge. Second, the cleaning fluid container of the Simmons patent did not incorporate a filter. The alleged invention of the '556 patent is the addition to the Simmons patent cleaning system of a removable and replaceable cleaning fluid cartridge with an integrated filter. (Ex. 13, at col. 1, ll. 34-59) ("[I]t is an object of the present invention to improve upon the cleaning device such as to allow ready replacement of the cleaning fluid container. According to the present invention, this object is accomplished in that the cleaning fluid container is separable from the cleaning device and includes a filter means integrally formed therewith.") Braun modified the Simmons patent cleaning system at least partially because it provided Braun with the opportunity for after-market sales. (Ex. 14, Pahl Dep., at 55-56.)

D. U.S. Patent No. 5,711,328

29. Like the '556 patent, U.S. Patent No. 5,711,328 ("the '328 patent") is directed at a system for cleaning shavers. (Ex. 13.) The '328 patent also purports to improve upon the Simmons patent.

30. The '328 patent states that a disadvantage of the cleaning system in the Simmons patent was that the shaver had to be removed from the bath to be dried in another trough following cleaning. (Ex. 15, at col. 1, ll. 54-56.)

Braun's alleged improvement was thus configuring the "cradle" as "a cleaning dish, a drying dish, and/or a storage device and/or is provided in the cleaning device." (Ex. 15, at col. 2, ll. 28-31.)

E. Level of Ordinary Skill in the Art

31. As discussed further below, I have provided opinions as to the invalidity of asserted patent claims from the perspective of one of ordinary skill in the art in January 1995. I understand that the factors that may be considered in determining the level of ordinary skill in the art include (1) the educational level of the inventor; (2) types of problems encountered in the art; (3) prior art solutions to these problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field. It is my opinion that one of ordinary skill in the art would have at least a Bachelor of Science Degree in Mechanical Engineering and 3-5 years of relevant industry experience.

32. I understand that Braun has proposed that the level of skill in the art is experience in design in the dry shaving industry. I disagree that the art of the patents-in-suit is so limited. Having reviewed substantial prior art, in my opinion, dishwashers, tool cleaners, parts washers, jewelry cleaners, etc. are part of the same art as the patents-in-suit in that they have the same purpose -- to wash or clean discrete objects.

33. I have reviewed the depositions of named inventor Gebhard Braun and Dr. Pahl. Mr. Braun received training analogous to that of an engineering

student here in the United States. (Ex. 16, at 24.) He also had many years of experience working as an engineer -- both at Braun and elsewhere. (Ex. 16, at 25-29.)

34. Dr. Pahl received a doctoral degree in Mechanical Engineering. (Ex. 14, at 9-11.) He too worked for many years as a mechanical engineer on shavers and other appliances. (Ex. 14, at 10-11.)

35. Moreover, while working on Braun's shaver cleaning system, Mr. Braun called upon Braun employees who focused on the development of different devices. In particular, Mr. Braun worked with individuals that worked on toothbrushes and Mr. Smetana, a designer of hair dryers. (Ex. 16, at 45-47.) Mr. Braun's actions further support my opinion that the experience of a person of ordinary skill in the art would not be limited to designing dry shavers.

36. Moreover, following the departure of Mr. Braun, Braun hired Juergen Hoeser to head further work upon the cleaning system. When he was hired, Mr. Hoeser had no experience in the design of dry shavers. (Ex. 17, at 26.) In my experience, one of less than ordinary skill in the art would not be hired to head a research project.

37. In addition, as part of his research, Mr. Hoeser also sought the assistance of Braun employees charged with designing toothbrushes. (Ex. 17, at 108.) He also analyzed a contact lens cleaner as part of his development of Braun's cleaning system. (Ex. 17, at 126.) Mr. Hoeser's testimony also supports my opinion.

38. I have reviewed the testimony of Mr. Chasen, the Rayovac engineer who performed much of the work in designing Rayovac's accused products. Prior to working at Rayovac (then Remington), Mr. Chasen, who has a Bachelor's Degree in Mechanical Engineering, had no experience in designing dry shavers. (Ex. 18, at 8-9.) He did, however, have substantial industry experience.

39. I note also that, during prosecution of the patents-in-suit, Braun repeatedly argued that prior art cleaning systems not specifically directed to shavers were "nonanalogous art." (Ex. 12 at B000346, 19 at B00095, 103.) I understand that "nonanalogous art" is prior art that would not be considered by one of ordinary skill in the art. Based upon my education and experience, I disagree with Braun. However, the testimony of Braun's own employees that worked on the Braun's shaver cleaning system demonstrates that Braun's argument is false.

40. Finally, while I believe my opinion as to the level of ordinary skill in the art is correct, my opinions would not change if the level of skill proposed by Braun controlled.

IV. DETAILED CONCLUSIONS FOR THE PATENTS-IN-SUIT

A. INDEFINITENESS

41. I understand that a claim term is indefinite if it does not reasonably apprise those of skill in the art of its scope. I further understand that the Court tentatively construed the claim elements "a cradle structure adapted to receive therein the shaving head" (from the '556 patent) and "a cradle

structure adapted to receive a shaver head of a shaving apparatus" (from the '328 patent) to both mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." It is my opinion that the "cradle structure" elements, as tentatively construed by the Court, do not reasonably apprise a person of ordinary skill in the art as to their scope.

42. The Court's construction provides no guidance as to what structures are and are not covered by the "cradle structure" elements. More particularly, during prosecution of both patents-in-suit, Braun repeatedly argued to the United States Patent and Trademark Office ("the USPTO") that certain prior art structures were not "cradle structures." The prior art structures, however, fall within the Court's tentative claim construction. A person of ordinary skill in the art would thus be unable to reconcile the Court's tentative construction with the prosecution history.

43. First, during prosecution of the '556 patent, the USPTO rejected certain application claims as obvious over U.S. Patent No. 3,890,988 ("the Lee Patent") and stated that the Lee Patent disclosed a "cradle adapted to receive the article therein." (Ex. 19, at B00083-84.) The Lee Patent disclosed a cleaning system for tools, and Figure 5 of the Lee Patent is reproduced immediately below. (Ex. 20).

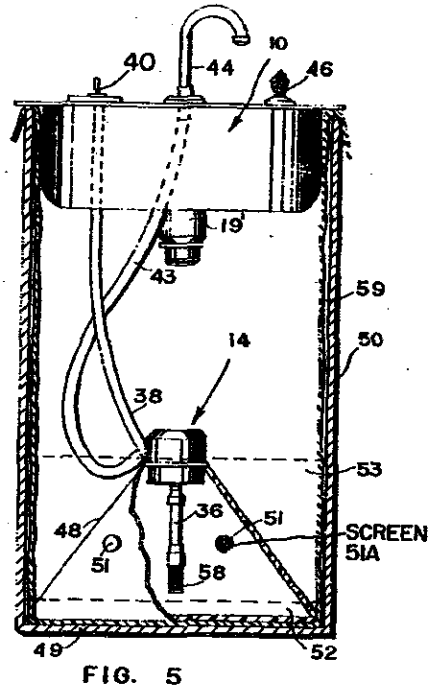


FIG. 5

44. In response to the Examiner's rejection, Braun argued that "Lee provides nothing like a cradle structure adapted to receive a shaving head of a dry shaving apparatus." (Ex. 19, at B00096.) However, the basin (referred to in the Lee specification as receptacle 10) shown in Figure 5 of the Lee Patent clearly is a structure that retains fluid. Moreover, depending on its size, the basin in the Lee Patent would be adapted to receive a shaving head of a shaving apparatus.

45. Also during prosecution of the '556 patent, the USPTO rejected certain application claims as obvious over U.S. Patent No. 4,815,486 ("the Schinn Patent"). (Ex. 19, at B00099-100.) The Schinn Patent disclosed a cleaning system for paint brushes, and Figure 2 of the Schinn Patent is reproduced immediately below. (Ex. 21).

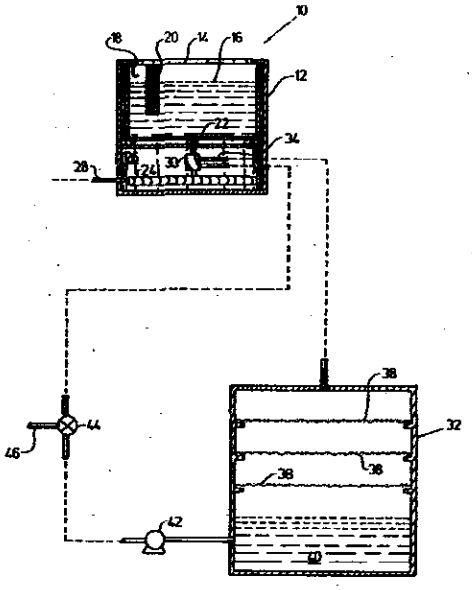


FIG 2

46. Braun again stated to the USPTO that the "limitation of a cradle structure adapted to receive a shaving head ... structurally defines the cradle structure of the invention over Schinn's hooks and baskets." (Ex. 19, at B000103.) However, the structure shown in Figure 5 of the Schinn Patent clearly is a structure that retains fluid. Moreover, depending on its size, the structure in the Schinn Patent would be adapted to receive a shaving head of a shaving apparatus.

47. Finally, during prosecution of the '328 patent, the USPTO issued an obviousness rejection over U.S. Patent No. 5,335,394 ("the Cunningham Patent"). (Ex. 12, at B000322-23.) The Cunningham Patent discloses a cleaning system for eye glasses. (Ex. 22.) It also discloses an alternative

embodiment in which dentures placed in a basket are also cleaned. Figure 4 of the Cunningham Patent illustrating the alternative embodiment is reproduced immediately below.

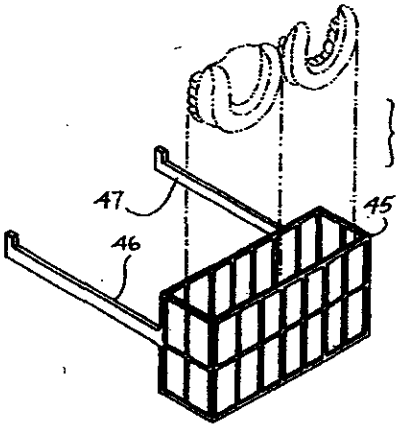


FIG. 4

48. In response to the USPTO's rejection, Braun explicitly argued that there is no "cradle structure" in the Cunningham Patent. (Ex. 12, at B000335.) However, the basket shown in Figure 4 of the Cunningham Patent clearly is a structure that receives fluid. Moreover, the basket used to clean dentures in the Cunningham Patent appears to be of the type used at Braun to clean shaving heads in an ultrasonic cleaning system.[1] (Ex. 17, Hoeser Dep., at 31-33.)

49. In my opinion, the Court's tentative claim construction does not distinguish the structures that Braun argued were not "cradle structures"

[1] I understand that Braun has not yet produced any documents regarding the ultrasonic cleaning system. Assuming Braun produces or is required to produce such documents, I reserve the right to analyze and comment upon them.

that met the limitations in the patent. As a result, it is my opinion that the "cradle structure" elements, as construed by the Court, are indefinite.

B. WRITTEN DESCRIPTION

50. I understand that, in order for a patent claim to be valid, the written description in the specification must allow one of ordinary skill in the art to recognize that the inventor invented what is claimed. I further understand that there can be no written description for what the inventor did not conceive. Based upon the Court's tentative construction of the "cradle structure" element presented above, it is my opinion that all asserted claims of the '556 and '328 patents are invalid for failure to describe the claimed "cradle structures."

51. More particularly, there is no written description in either patent specification which would clearly allow one of ordinary skill in the art to recognize that Gebhard Braun (or Dr. Dietrich Pahl) invented a structure adapted to support or receive a shaving head of shaving apparatus that receives, but ***does not retain*** fluid. Rather, in both patents, the "cradle 7" is consistently described as retaining fluid. (Ex. 15, '328 pat., at col. 2, ll. 63-67, col. 6, ll. 20-21, col. 6, ll. 44-52, col. 7, ll. 47-49; Ex. 13 '556 pat., at col. 3, ll. 29-31, col. 4, ll. 42-43, col. 5, ll. 35-36, col. 7, ll. 4-5.) There is no written description in either patent for a "cradle structure" that does not retain cleaning fluid during the cleaning operation.

52. The lack of written description is not surprising insofar as neither Gebhard Braun nor Dietrich Pahl conceived of a cradle structure that merely

received cleaning fluid. Gebhard Braun testified that the trough in the cleaning system upon which he worked was always filled with fluid during cleaning, a condition essential to the cleaning of a shaver head in his system. (Ex. 16, Braun Dep., at 125, 172.) Mr. Braun's testimony is consistent with the internal invention application he submitted at Braun. (Ex. 23.) That invention application only describes a trough which at all times during cleaning retains fluid. (Ex. 23, at B001070ENG.) Likewise, Dr. Pahl also testified that in his cleaning system he believed that retaining fluid in the trough was essential to the operation of the device. (Ex. 14, at 85-86.) He too never conceived of a cleaning system in which the "cradle structure" only received (but did not retain) cleaning fluid. (Ex. 14, at 85-86.)

53. The testimony of Mr. Braun and Dr. Pahl is further supported by the testimony of Juergen Hoeser. When Mr. Hoeser took over the cleaning center project in 1995, he described the work of Mr. Braun and Dr. Pahl as a "chicken trough." (Ex. 17, Hoeser Dep., at 24.) He based that nickname upon his recollection of a tub that would be filled with water on a farm to feed chickens. (Ex. 17, Hoeser Dep., at 24.) Mr. Hoeser also testified that he is the only individual at Braun who allegedly thought of a cleaning system (such as Rayovac's accused products) in which there is no fluid retention.[2] (Ex. 17, Hoeser Dep., at 97-99.) I understand that Mr. Hoeser

[2] I understand that Braun has not produced documents relating to Mr. Hoeser's work on the cleaning system described above. To the extent that such documents are produced, I reserve the right to comment upon them.

came to work at Braun in July 1995 after both of the patents-in-suit were filed with the USPTO. (Ex. 17, Hoeser Dep., at 19.)

54. Based upon my review of the written description of both patents-in-suit and the deposition testimony, it is my opinion that the patents-in-suit lack an adequate written description insofar as they both do not describe a "cradle structure," as tentatively construed by the Court.

C. NEW MATTER

55. The patents-in-suit claim priority to German Patent Application Nos. 4402237.9, for the '556 patent, and 4402238.7, for the '328 patent ("collectively the German applications"). In my opinion, the United States patent applications corresponding with the patents-in-suit both introduced new matter; *i.e.*, that they contain additional subject matter not disclosed to one of ordinary skill in the art in the German applications.

56. First, for both patents, Birgit Hubatsch allegedly translated the German applications including the word "aufnahmeteil." (Exs. 12 at B000182, Ex. 19, at B000077.) Ms. Hubatsch translated the word "aufnahmeteil" to mean "cradle" or "cradle structure," and Braun represented that this translation was literal. (*Id.* at B000265-66; B00046-47.)

57. Later, however, on Braun's behalf Susan Christian of TransPerfect Translations translated "aufnahmeteil" as "receptacle." (Ex. 24.) I have reviewed the Dictionary of Engineering and Technology, Vol. I English-German, 5th Edition, 1989 ("the English to German Dictionary") and the German-English Dictionary Vol. II, 4th Ed. 1975) ("the German to English

Dictionary") to check whether Ms. Christian's translation was correct, and it is. (Exs. 25 and 26.) I also noted that the German to English Dictionary provides many German words for the English word "cradle," but none of those words is "aufnahmetiel." (Ex. 26.)

58. A "receptacle" is a different structure than a "cradle structure," as tentatively construed by the Court. In my experience, a "receptacle" can merely maintain a liquid level. On the other hand, a "cradle structure," as construed by the Court, is a broader term, having the additional characteristic of receiving fluid, but then letting it run out as, for example, a dishwasher rack. In my opinion, the term "receptacle" would not reasonably convey to one of ordinary skill in the art that Gebhard Braun (and/or Dr. Dietrich Pahl) invented a "cradle structure" as construed by the Court. To the extent that "cradle structure" means anything different from "receptacle" -- and I understand the Court's construction to mean something different from "receptacle" -- then the U.S. patent applications included matter not contained in the German priority applications.

59. Second, the '328 patent contains a description of prior art French Patent No. 2,568,111. (Ex. 15, at col. 1, l. 59 - col. 2, l. 8.) Ms. Christian's translation of the German counterpart application to the '328 patent indicates that there was no discussion whatsoever of the French patent in the originally filed German application. (Ex. 24.) In my opinion, the remaining text in the German counterpart application would not

reasonably convey to one of ordinary skill in the art the substantial discussion of the French patent.

D. BEST MODE

60. I understand that a patent is invalid if an inventor fails to disclose the best mode contemplated by him, as of the time his patent application was filed, of carrying out his invention. I also understand that the written description of a patent is viewed from the perspective of one of ordinary skill in the art in determining whether a best mode of practicing an invention was concealed. It is my opinion that both of the patents-in-suit fail to describe what the inventor (or inventors if Dr. Pahl is one) believed to be the best way to practice the claimed invention.

61. In particular, the patents-in-suit do not disclose to a person of ordinary skill in the art the cleaning fluid preferred by Dr. Dietrich Pahl. All asserted claims of the patents-in-suit recite a cleaning fluid. Dr. Dietrich Pahl testified that, prior to the January 1995 filing dates of the patents-in-suit, he preferred the cleaning fluid used in spray cans sold by Braun for the cleaning of shavers. (Ex. 14, Pahl Dep., at 165-69.) Braun purchased such cleaning fluid from a third party unknown to Dr. Pahl. (Ex. 14, Pahl Dep., at 36-37.) Such cleaning fluid contained methyl alcohol, a lubricant, and a fragrance. (Ex. 14, Pahl Dep., at 165-69.) Dr. Pahl further testified that, in addition to the grease dissolving properties of the fluid, he also looked for a cleaning fluid with the lowest possible viscosity. (Ex. 14, Pahl Dep., at 165.)

62. I note that Gebhard Braun has testified that he did not participate in analyzing cleaning fluid, and he relied upon Dr. Pahl for the selection of an appropriate fluid. (Ex. 16, Braun Dep., at 87.) However, Mr. Braun did testify that the cleaning fluid employed accounted at least partially for the "magical" results of Dr. Pahl's cleaning system. (Ex. 16, Braun Dep., at 54, 87.) I further understand that Braun has not produced the specification for Dr. Pahl's preferred cleaning fluid. When Braun produces that specification, I reserve the right to review it and comment upon it.

63. In my opinion, one of ordinary skill in the art would not recognize Dr. Pahl's preferred cleaning fluid from them written description of either patent-in-suit. Each patent specification merely states that a "fat-dissolving cleaning fluid" should be used with the claimed cleaning system. (Ex. 13, '556 pat., at col. 6, ll. 15-16; Ex. 16, '328 pat., at col. 4, ll. 23-24.)

64. From the recitation of a "fat-dissolving cleaning fluid," one of skill in the art would not recognize that methyl alcohol was the preferred solvent for grease. Nor would one of skill in the art recognize that the "fat-dissolving cleaning fluid" should have the lowest viscosity possible. Indeed, Mr. Hoeser needed to seek the assistance of chemists at Braun in selecting an appropriate cleaning fluid. (Ex. 17, Hoeser Dep., at 134-35.)

65. Moreover, one of ordinary skill in the art certainly would not recognize that Dr. Pahl's preferred cleaning fluid contained a lubricant. Indeed, as

the patent specifications teach the dissolution of grease, one of ordinary skill in the art would not expect to place a lubricant in the cleaning fluid. Dr. Pahl, however, testified that the lubricant was necessary to maintain the shaving head over time. (Ex. 14, Pahl Dep., at 167.) There is no discussion in either patent specification regarding the beneficial effects of the lubricant.

66. Finally, there is no suggestion in either patent's written description regarding inclusion of a fragrance in the cleaning fluid. There is also no suggestion that there would have been an unpleasant odor associated with the cleaning system.

E. INVENTORSHIP

a. Dr. Dietrich Pahl

67. The information that I have reviewed indicates to me that Dr. Dietrich Pahl developed the ideas for several asserted claims of the patents in suit.

68. I understand that Braun has asserted that Dr. Dietrich Pahl invented many of the alleged inventions in the patents-in-suit. Having reviewed the deposition transcripts of Mr. Braun and Dr. Pahl, I agree.

b. Norbert Smetana

69. I have reviewed the deposition transcripts of Dr. Pahl, Mr. Braun, Norbert Smetana, and certain documents that Braun has provided in this case. Based upon that review of that evidence, it is my opinion that Mr. Smetana provided the idea for the combination of an impeller and a heater claimed in claim 13 of the '328 patent.

70. According to Braun, Dr. Pahl had conceived of and reduced to practice a prototype cleaning system by November 1992. (Ex. 27, Braun's Response to Rayovac Interrogatory No. 2.) Dr. Pahl's prototype included an axial fan to dry the shaver head. (Ex. 28, Smetana Dep., at 18.) At some point in 1993, at the request of Dr. Pahl and/or Mr. Braun, Norbert Smetana, a designer of Braun's hair dryers, began working on aspects of Dr. Pahl's prototype. (Ex. 28, Smetana Dep., at 36-38.) Mr. Smetana memorialized his work in an August 3, 1993 memorandum addressed to Mr. Braun, Dr. Pahl, and Dr. Jung. (Ex. 29.)

71. In that memorandum, Mr. Smetana reported that the fan in the cleaning system dried the shaver head with "cold air," *i.e.* not with a heater. (Ex. 29.) At the end of the memorandum, Mr. Smetana suggested that a heater be used with the fan to expedite the drying. (Ex. 29.) Mr. Smetana testified that the idea for using the heater with the fan may have been conceived "jointly" with Mr. Braun. (Ex. 28, Smetana Dep., at 48-49.) On the other hand, Mr. Braun testified that he had no role in the development of the drying device for the Braun cleaning system. (Ex. 16, Braun Dep., at 139.)

72. Claim 13 of the '328 patent depends from claim 12, and requires that the "drying device" comprise both an impeller and a heater. It is my opinion

that Mr. Smetana provided the idea for the combination of an impeller and a hearter, as claimed in claim 13 of the '328 patent.[3]

73. I understand that Braun has asserted that Dr. Pahl's original prototype contained a heater. However, Mr. Hoeser, who testified as Braun's designee on conception and reduction to practice, could not identify a heater in any documents that Braun has produced from the early 1990's. (Ex. 17, Hoeser Dep., at 82-86.)

c. Helmut Kraus

74. I have reviewed the deposition transcripts of Mr. Braun, Dr. Pahl, Mr. Hoeser, and certain documents Braun has produced. Based upon that review, it is my opinion that Helmut Kraus provided the idea for at least an interlock claimed in claim 19 of the '328 patent.

75. According to Braun, claim 18 of the '328 patent, which includes the limitation "a bracket for insertion of the shaving apparatus therein," was conceived and reduced to practice by July of 1993. (Ex. 27, Braun's Response to Rayovac Interrogatory No. 2.) The July 1993 date corresponds with the submission of Mr. Braun's internal invention application at Braun. (Ex. 23.) However, prior to June 4, 1993, Braun had submitted a prototype of Dr. Pahl's cleaning system to VDE, a German testing group, for approbation. (Ex. 32.) Dr. Pahl had, in fact, requested that VDE inspect his cleaning system. (Ex. 14, Pahl Dep., at 183-84.) Mr.

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[3] I understand that Mr. Smetana has documents related to his work on the shaver cleaning system that have not been produced in this litigation. (Ex. 28, Smetana Dep., at 25-80.) I reserve the right to review these documents and comment upon them.

Kraus analyzed the prototype, and, thereafter, had a meeting with Mr. Stiegler and Mr. Petretti of Braun to relay his ideas. Following the meeting, Mr. Stiegler sent a June 4, 1993 memorandum to Dr. Pahl (among others) reporting Mr. Kraus' ideas. (Ex. 30.)

76. In that memorandum, Mr. Stiegler reported that Mr. Kraus had instructed Braun that an interlock needed to be included with the cleaning system. (Ex. 30.) The purpose of the interlock was to preclude a consumer from removing the shaver during cleaning/drying due to the risk of electric shock. (Ex. 14, Pahl Dep., at 184-86.) It is my opinion that one of ordinary skill in the art would have been able to implement the instruction of Mr. Kraus with routine engineering.

77. Dr. Pahl testified that he believed that the interlock constituted an inventive improvement upon his original cleaning system prototype. (Ex. 14, Pahl Dep., at 111-12.) According to Dr. Pahl, the interlock is shown in item 9 of Figure 1 of the '328 patent, and it represents the idea from Mr. Kraus. (Ex. 14, Pahl Dep., at 206.) Dr. Pahl also believes that he would have conveyed the ideas of Mr. Kraus to Mr. Braun at some time. (Ex. 14, Pahl Dep., at 184-86.)

78. Mr. Braun testified that he believed the interlock to be an inventive improvement upon the original work of Dr. Pahl. (Ex. 16, Braun Dep., at 69.) Consistent with the recollection of Dr. Pahl, Mr. Braun also testified that he likely received the idea for the interlock from conversations with Dr. Pahl about the approbation process. (Ex. 16, Braun Dep., at 76-77.)

In all events, Mr. Braun testified that the idea likely came from the approbation process somehow. (Ex. 16, Braun Dep., at 76-77.)

79. Mr. Hoeser, Braun's 30(b)(6) designee on the topic of conception and reduction to practice, testified that the interlock recommended by Mr. Kraus is represented by items 9 and 10 on Figure 1 of the '328 patent. (Ex. 17, Hoeser Dep., at 87-90.) Item 10 in Figure 1 is the "bracket" recited in claim 18 of the '328 patent. The '328 patent states: "Further, by means of a switching means 9 which may be configured as a start button and is mounted in bracket 10, the shaving apparatus 1 (FIG. 1) is mechanically and/or electrically interlocked." (Ex. 15, at col. 6, ll. 61-64.) Mr. Hoeser further testified that the June 4, 1993 memorandum represents an earlier conception date than the July 1993 alleged by Braun for claim 18 of the '328 patent. (Ex. 17, Hoeser Dep., at 90.)

80. It is thus my opinion that Mr. Kraus provided the idea for at least the interlock claimed in claim 19 of the '328 patent.

F. ANTICIPATION

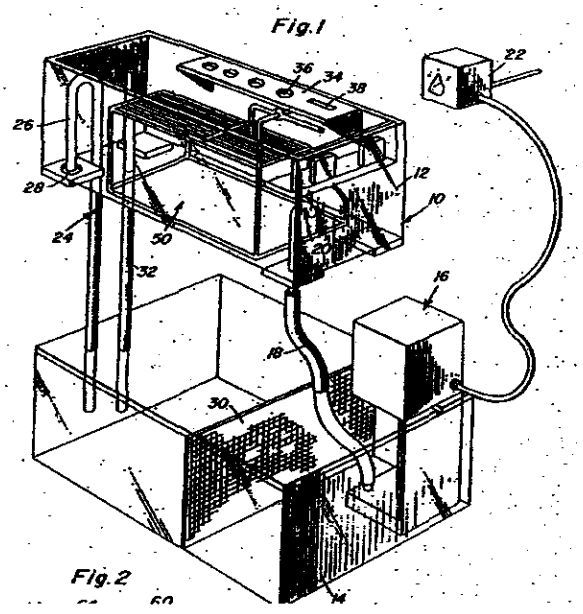
81. I have analyzed whether various prior art patents anticipate the asserted claims of the patents-in-suit. I understand that, in order to anticipate any claim of a patent, a prior art patent must disclose each element of a particular claim. In performing my anticipation analysis, I have applied the tentative claim constructions offered by the Court at the Markman Hearing in March 2005.

The '556 Patent

a. U.S. Patent No. 3,365,267 ("MeKiney")

Claim 1

82. The application for the MeKiney Patent was filed on September 12, 1963 and issued as a patent on January 23, 1968. I understand that it is prior art to the '556 patent. The MeKiney Patent is generally directed to "a sterilizing tank" for barber tools. Figure 1 of the Mekiney Patent is reproduced immediately below.



83. Claim 1 of the '556 patent first requires: "A cleaning device for cleaning a shaving head of a dry shaving apparatus." The MeKiney Patent discloses this element in its teaching of a device for washing barber's tools. (Ex. 8, at col. 1, l. 3 & col. 2, ll. 10-11.) In particular, the MeKiney Patent

discloses the bathing of the head of hair clippers, a type of dry shaving apparatus.

84. The MeKiney Patent discloses "a cradle structure adapted to receive therein the shaving head." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." The MeKiney Patent discloses a shelf 44 and a tank 12. The shelf 44 and tank 12 are adapted to receive and support the shaving head of a shaving apparatus. Indeed, the MeKiney Patent states "shelf [44] is specifically adapted to support clipper blades such as 48 which will be retained and held on the shelf 44 by means of the magnets 46." (Ex. 8, at col. 3, ll. 37-39.) The shelf 44 and tank 12 also both receive and retain cleaning fluid.

85. I understand that the Court has tentatively construed the expression "a cleaning fluid container separate from the cradle structure for holding a cleaning fluid" to mean "a separate cleaning fluid container that is a removable cartridge which holds cleaning fluid." I also understand that Braun will attempt to read this limitation to somehow cover Rayovac's products, which do not have a removable cartridge. If Braun argues this claim cover Rayovac's products, the MeKiney Patent discloses the element-at-issue. In particular, tank 14 is separate from the "cradle structure," and it holds cleaning fluid. (Ex. 8, col. 2, l. 43 & Figs. 1 and 3.)

86. The MeKiney Patent discloses a "filter." Element 30 in Figure 1 is a filter. (Ex. 8, at col. 3, l. 14.)

87. I understand that the Court has construed the term "a fluid feed mechanism which feeds the cleaning fluid after it passes through the filter to the cradle structure during cleaning" to mean "a mechanism that feeds cleaning fluid from the cleaning fluid container to the cradle structure after the cleaning fluid passes through the filter." I understand that the parties also agree that this element requires that fluid must first be fed from the pump to the filter and then to the "cradle structure." If Braun abandons this position, then the MeKiney Patent discloses the element-at-issue as well. In particular, the MeKiney Patent states: "When the sterilizing fluid is returned to the tank 14, the fluid before it returns to the pump to be pumped back to the tank 12 must pass through a removable filter element 30 disposed between the side walls of the lower tank." (Ex. 8, at col. 3, ll. 10-15.)

88. I understand that the Court has tentatively construed the term "said container and filter being separable from the cradle structure as a unit" to mean "the container and filter are integrally formed or assembled as a unit, such unit being removable from the cleaning device." I also understand that Braun will attempt to read this limitation to somehow cover Rayovac's products, which do not have a removable cartridge assembled with a filter as a unit. If Braun argues this claim cover Rayovac's

products, the MeKiney Patent discloses a lower tank that holds fluid and a removable and replaceable filter. (Ex. 8, at col. 3, ll. 10-15.)

Claim 2

89. I understand that the Court has tentatively construed the element "the cleaning fluid container is comprised of two chambers, one chamber serving to hold the cleaning fluid, the other chamber being configured as a filter" to mean "the cleaning fluid container consists of two enclosed chambers. One chamber holds cleaning fluid, the other chamber is a filter." If Braun argues this claim somehow covers Rayovac's products, the MeKiney Patent discloses the element. (Ex. 8, at Fig. 3.)

Claim 6

90. The MeKiney Patent discloses "the cleaning fluid container includes ports through which cleaning fluid passes in and out of the cleaning fluid container." In particular, the MeKiney Patent discloses tank 14, which has inlet ports at pipes 24 and 32 and an outlet port at hose 18. (Ex. 8, at Fig. 3.)

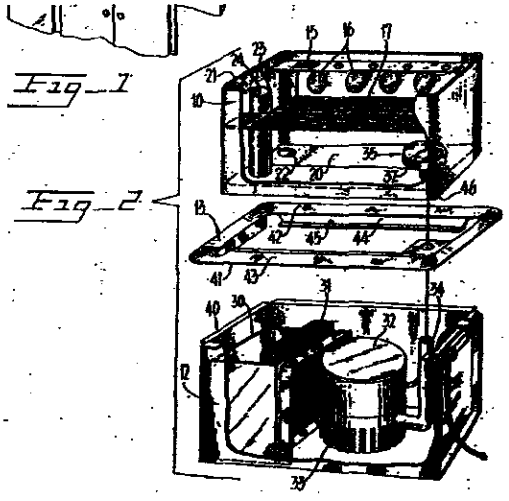
Claim 18

91. The MeKiney Patent discloses "the cradle structure is open towards atmosphere and is supplied with cleaning fluid from the cleaning fluid container by means of the fluid feed mechanism." As is clearly shown in Figures 1 and 3 of the MeKiney Patent, the "cradle structure" is open to the atmosphere. Moreover, pump 16 feeds cleaning fluid from tank 14 to the cradle. (Ex. 8, at col. 2, ll. 46-56.)

b. U.S. Patent No. 3,500,840 ("Maatz")

Claim 1

92. The application for Maatz Patent was filed on November 30, 1967 and issued as a patent on March 17, 1970. It is thus prior art to the '556 patent. The Maatz Patent is generally directed to "a cleaning and sterilizing apparatus for barbering tools." Figure 2 of the Maatz Patent is reproduced immediately below.



93. Claim 1 first requires: "A cleaning device for cleaning a shaving head of a dry shaving apparatus." The Maatz Patent discloses this element in its teaching of a device for washing barber's tools. (Ex. 10, at col. 1, l. 3 & col. 2, ll. 10-11.) One of ordinary skill in the art would recognize that barber's tools include hair clippers, a type of dry shaving apparatus.

94. The Maatz Patent discloses "a cradle structure adapted to receive therein the shaving head." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a

shaving head of a shaving apparatus and able to receive or retain fluid or both." Cleaning tank 10 is a structure adapted to receive a shaving head of a shaving apparatus. (Ex. 10, at col. 2, ll. 27-30.) The cleaning tank 10 receives and retains cleaning fluid.

95. I understand that the Court has tentatively construed the term "a cleaning fluid container separate from the cradle structure for holding a cleaning fluid" to mean "a separate cleaning fluid container that is a removable cartridge which holds cleaning fluid." I also understand that Braun will attempt to read this limitation to cover Rayovac's products, which do not have a removable cartridge. If Braun argues this claim covers Rayovac's products, then the Maatz Reference also discloses the element. In particular, "the cleaning tank [10] can be removed from the top of the storage tank [12]." (Ex. 10, at col. 3, ll. 32-33.)

96. The Maatz Patent discloses a "filter." Element 31 in Figure 2 is a filter. (Ex. 10, at col. 2, l. 43.)

97. I understand that the Court has construed the term "a fluid feed mechanism which feeds the cleaning fluid after it passes through the filter to the cradle structure during cleaning" to mean "a mechanism that feeds cleaning fluid from the cleaning fluid container to the cradle structure after the cleaning fluid passes through the filter." I understand that the parties also agree that this element requires that fluid must first be fed from the pump to the filter and then to the "cradle structure." If Braun abandons its position, then the Maatz Patent discloses the element-at-issue. As can be

seen in Figure 2, fluid is pumped into the cleaning tank and then is drained into the filter tank.

98. I understand that the Court has tentatively construed the term "said container and filter being separable from the cradle structure as a unit" to mean "the container and filter are integrally formed or assembled as a unit, such unit being removable from the cleaning device." I also understand that Braun will attempt to read this limitation to somehow cover Rayovac's products, which do not have a cartridge assembled with a filter as a unit. If Braun argues this claim covers Rayovac's products, then the Maatz Patent discloses a lower tank that holds fluid and a removable and replaceable filter. (Ex. 10, at col. 3, ll. 31-36.)

Claim 2

99. I understand that the Court has tentatively construed the element "the cleaning fluid container is comprised of two chambers, one chamber serving to hold the cleaning fluid, the other chamber being configured as a filter" to mean "the cleaning fluid container consists of two enclosed chambers. One chamber holds cleaning fluid, the other chamber is a filter." The Maatz Patent discloses that "[t]he second or storage tank 12 contains a separate filter tank 30 having a filter 31 mounted therein." (Ex. 10, at col. 2, ll. 42-43.)

Claim 6

100. The Maatz Patent discloses "the cleaning fluid container includes ports through which cleaning fluid passes in and out of the cleaning fluid

container." In particular, the Maatz Patent discloses pump discharge port 34 and suction port 33 which pass fluid into and out of storage tank 12. (Ex. 10, at col. 2, ll. 45-47.)

Claim 18

101. The Maatz Patent discloses "the cradle structure is open towards atmosphere and is supplied with cleaning fluid from the cleaning fluid container by means of the fluid feed mechanism." As is clearly shown in Figure 2 of the Maatz Patent, the "cradle structure" is open to the atmosphere. Moreover, pump 32 feeds cleaning fluid from the storage tank 14 to the cradle. (Ex. 10, at col. 1, ll. 61-64.)

The '328 Patent

c. U.S. Patent No. 3,365,267 ("MeKiney")

Claim 11

102. The application for the MeKiney Patent was filed on September 12, 1963 and issued as a patent on January 23, 1968. It is thus prior art to the '328 patent.

103. The MeKiney Patent discloses "a cradle structure adapted to receive a shaving head of a shaving apparatus." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." The MeKiney Patent discloses a shelf 44 and a tank 12. The shelf 44 and tank 12 are adapted to receive and support the shaving head of a shaving apparatus. Indeed, the MeKiney Patent

states "shelf [44] is specifically adapted to support clipper blades such as 48 which will be retained and held on the shelf 44 by means of the magnets 46." (Ex. 8, at col. 3, ll. 37-39.) The shelf 44 and tank 12 also both receive and retain cleaning fluid.

104. The '328 patent claims the broader "shaving apparatus," a term that includes both hair clippers and razors. In addition to the hair clippers cleaned in the MeKiney Patent, the MeKiney Patent also discloses the cleaning of a razor 42 with liquid. (Ex. 8, at Fig. 3.)

105. I understand that the Court has tentatively construed the term "a cleaning fluid container separate from the cradle structure for holding a cleaning fluid" to mean "a container for holding cleaning fluid." Tank 14 holds cleaning fluid. (Ex. 8, col. 2, l. 43 & Figs. 1 and 3.)

106. I understand that the Court has tentatively construed some of the asserted claims as requiring "a feed device for feeding cleaning fluid from said cleaning fluid container to said cradle structure." The MeKiney Patent discloses Pump 16 feeds cleaning fluid from tank 14 to the "cradle structure." (Ex. 8, at Figs 1 & 3.)

107. I understand that the Court has construed the term "said cradle structure being arranged above a fluid level of the cleaning fluid in said cleaning fluid container during the feeding of said cleaning fluid to said cradle structure" to mean "during the feeding operation, the cradle structure is above the fluid level of the fluid in the cleaning fluid container." The

"cradle structure" is above the fluid level in the tank 14 during the feeding of fluid to the "cradle structure." (Ex. 8, at Figs. 1 & 3.)

108. I understand the Court has construed the term "a drying device" to mean "a device to dry the shaver head." The MeKiney Patent discloses a "drying device." In particular, the siphon tube 24 acts to automatically drain the fluid from tank 12, drip drying the cleaned shaver head. (Ex. 8, at col. 4, ll. 12-13.)

Claim 14

109. I incorporate by reference my discussion of the elements common to both claim 11 and claim 14 from above.

110. Claim 14 further describes the "cradle structure" as "said cradle structure being permanently open to the atmosphere." Tank 12 and shelf 14 are clearly "permanently open to the atmosphere." (Ex. 8, at Figs. 1 & 3.)

Claim 18

111. I incorporate by reference my discussion of the elements common to both claim 11 and claim 18 from above.

112. Claim 18 recites "a bracket for insertion of the shaving apparatus therein." I understand that the Court has tentatively construed the term "bracket" to mean "a bracket or projecting support." The MeKiney Patent discloses a bracket or projecting support for insertion of the shaving apparatus therein." In particular, shelf 34, slot 38, and magnets 46 meet the claim element. (Ex. 8, at col. 3, ll. 37-39.)

d. U.S. Patent No. 3,478,758 ("Davies")

Claim 11

113. The application for the Davies Patent was filed on February 13, 1967 and issued as a patent on November 18, 1969. It is thus prior art to the '328 patent. Figure 3 from the Davies Patent is reproduced immediately below.

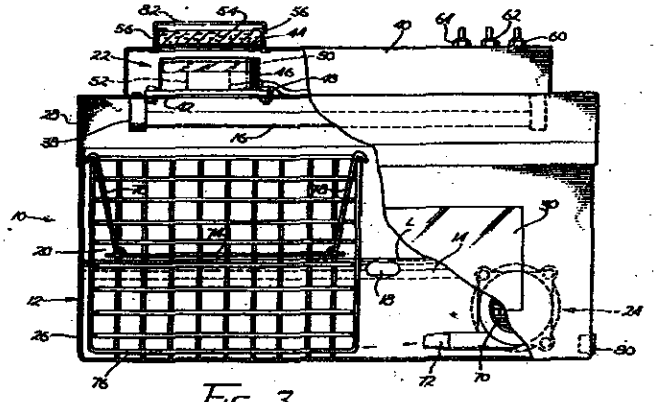


FIG. 3

114. The Davies Patent discloses "a cradle structure adapted to receive therein the shaving head." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." The Davies Patent discloses: "[I]mplement positioning means 20 comprises a perforated tray 74 for holding an implement to be washed and sterilized and locating the instrument in its aforementioned washing and sterilizing positions." (Ex. 9, at col. 4, ll. 34-36.) Such structure receives cleaning fluid. While the Davies Patent cleaning system describes

cleaning many "implements," the one object to be cleaned that is explicitly disclosed is hair clippers, a type of dry shaving apparatus. (Ex. 9, at col. 5, l. 75.) Thus, the structure is also adapted to receive and support a shaving head.

115. I understand that the Court has tentatively construed the term "a cleaning fluid container separate from the cradle structure for holding a cleaning fluid" to mean "a container for holding cleaning fluid." "Container 12" in the Davies Patent is a container for holding cleaning fluid. (Ex. 9, at col. 2, ll. 22-23.)

116. I understand that the court has construed some of the asserted claims as requiring "a feed device for feeding cleaning fluid from said cleaning fluid container to said cradle structure." The Davies Patent discloses such a structure. In the Davies Patent, fluid is fed from an external source through fitting 80 to the cradle structure. (Ex. 9, at col. 4, ll. 66-69.)

117. I understand that the Court has construed the term "said cradle structure being arranged above a fluid level of the cleaning fluid in said cleaning fluid container during the feeding of said cleaning fluid to said cradle structure" to mean "during the feeding operation, the cradle structure is above the fluid level of the fluid in the cleaning fluid container." In one embodiment of the Davies Patent, the level of cleaning fluid in the container 12 is below the "cradle structure" prior to the washing of the implement. "According to the alternative method ... of locating an implement in its washing and sterilizing positions, the implement tray 74

is supported in its elevated position of FIGURE 3, and the liquid 14 is initially fed to the container 12, through the fitting 80, until the liquid level rises above the implement on the tray. The implement is then submerged in its washing position within the liquid." (Ex. 9, at col. 4, l. 69 - col. 5, l. 1.) The Davies Patent thus discloses the element-at-issue.

118. I understand the Court has construed the term "a drying device" to mean "a device to dry the shaver head." The Davies Patent discloses a blower to dry the implement after it has been washed. (Ex. 9, at col. 3, ll. 53-63.)

Claim 12

119. I understand the Court has tentatively construed the term "an impeller" to mean "a rotating device or member of a turbine, blower, fan, or an axial or centrifugal pump." The Davies Patent thus discloses a drying device comprising an impeller. "Blower 22 is conventional and includes an outer cylindrical shroud 46 having a lower flange 48 which seats on the upper wall of container lid 28 about the lid opening 42 ... Rotably mounted within the shroud 46, for turning on the axis of the shroud, is a fan ("impeller") 50 ." (Ex. 9, at col. 3, ll. 53-57.)

Claim 14

120. I incorporate by reference my discussion of the elements common to both claim 11 and claim 14 from above.

121. Claim 14 further describes the "cradle structure" as "said cradle structure being permanently open to the atmosphere." In the Davies Patent, openings in blower 22 and deodorizer cartridge permanently vent ("open")

the cleaning device and the "cradle structure" to the atmosphere. "It is evident at this point that blower 22 is effective to exhaust air from the container 12 to atmosphere through the opening 42 in the container lid 28 and the opening 44 in the upper lid compartment 40." (Ex. 9, at col. 3, ll. 59-63.) "It is now obvious, therefore, that during operation of the blower 22, exhaust air flow from the container 12 occurs through the deodorizing cartridge 54, which is thereby effective to deodorize the emerging air." (Ex. 9, at col. 3, ll. 70-74.)

e. U.S. Patent No. 3,500,840 ("Maatz")

Claim 11

122. The Maatz Patent was filed on November 30, 1967 and issued as a patent on March 17, 1970. It is thus prior art to the '328 patent. Maatz discloses "a cradle structure adapted to receive therein the shaving head." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." Cleaning tank 10 is a structure adapted to at least receive a shaving head of a shaving apparatus. (Ex. 10, at col. 2, ll. 27-30.) The cleaning tank 10 receives and retains cleaning fluid.

123. It is important to note that, unlike the '556 patent, the claims of the '328 patent are not limited to a dry shaving apparatus. Rather, the '328 patent claims the broader "shaving apparatus," a term that includes both hair clippers and razors. One of ordinary skill in the art would recognize that

the barber's tools in the Maatz Patent include hair clippers, a type of "dry shaving apparatus." One of ordinary skill in the art would also recognize that the barber's tools in the Maatz Patent include razors, a type of "shaving apparatus."

124. I understand that the Court has tentatively construed the term "a cleaning fluid container separate from the cradle structure for holding a cleaning fluid" to mean "a container for holding cleaning fluid." In the Maatz Patent, the storage tank 12 contains a cleaning and sterilizing fluid. (Ex. 10, at col. 1, ll. 61-63.)

125. I understand that the court has construed some of the asserted claims to require "a feed device for feeding cleaning fluid from said cleaning fluid container to said cradle structure." Maatz teaches such a structure. Pump 32 feeds the cleaning fluid from the storage tank 12 to the cleaning tank 10. (Ex. 10, at col. 1, ll. 63-64.)

126. I understand that the Court has construed the term "said cradle structure being arranged above a fluid level of the cleaning fluid in said cleaning fluid container during the feeding of said cleaning fluid to said cradle structure" to mean "during the feeding operation, the cradle structure is above the fluid level of the fluid in the cleaning fluid container." In the Maatz Patent, the cleaning tank 10 is mounted above the storage tank 12. (Ex. 10, at col. 1, ll. 61-62.) During feeding of fluid to the cleaning tank, the "cradle structure" in the cleaning tank is above the level of the fluid in the storage tank 12. (Ex. 10, at Fig. 2.)

127. I understand that the Court has construed the term "a drying device" to mean "a device to dry the shaver head." In the Maatz Patent, the cleaning tank 12 has a drain 22 (Ex. 10, at Fig. 2.) The drain is a device which allows the fluid to drain from the cleaning tank 10, allowing the shaver to drip dry, thereby drying the shaver head. (Ex. 10, at col. 3, ll. 28-29.)

Claim 14

128. I incorporate by reference my discussion of the elements common to both claim 11 and claim 14 from above.

129. Claim 14 further describes the "cradle structure" as "said cradle structure being permanently open to the atmosphere." Cleaning tank 10 is clearly permanently open to the atmosphere. (Ex. 10, Fig. 2.)

Claim 18

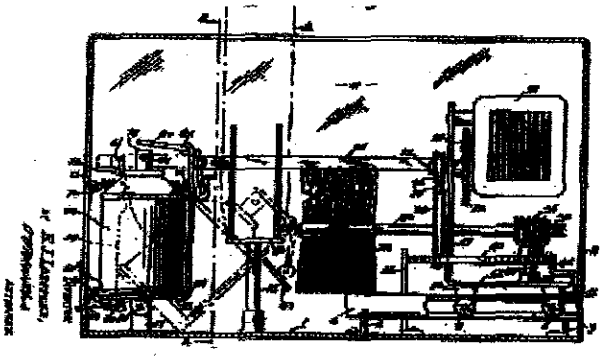
130. I incorporate by reference my discussion of the elements common to both claim 11 and claim 18 from above.

131. Claim 18 recites "a bracket for insertion of the shaving apparatus therein." I understand that the Court has tentatively construed the term "bracket" to mean "a bracket or projecting support." The Maatz Patent discloses a bracket or projecting support for insertion of the shaving apparatus therein. In particular, rack 14 and a series of magnets are all brackets into which the shaving apparatus is inserted during cleaning. (Ex. 10, at col. 2, ll. 28-29.)

f. U.S. Patent No. 2,976,552 ("Loeffler")

Claim 14

132. The Loeffler Patent was filed on November 12, 1957 and issued as a patent on March 28, 1961. ("The Loeffler Patent," Ex. 6) It is thus prior art to the '328 patent. Figure 1 of the Loeffler Patent is reproduced immediately below.



133. I note that the Loeffler Patent incorporates the claims and written description of U.S. Patent No. 2,788,536 ("the '536 patent") issued to the same inventor. (Ex. 5.)

134. The Loeffler Patent discloses "a cradle structure adapted to receive a shaving head of a shaving apparatus." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." In the Loeffler Patent, there is a "cradle 50 ... shaped to receive therein the head of [a] hair clipper." (Ex. 6, at col.

2, ll. 35-36.) The cradle receives cleaning fluid from a spray can during the cleaning of the shaving head. (Ex. 6, at col. 2, ll. 45-46.)

135. The "cradle structure" in the Loeffler Patent is also "permanently open to the atmosphere." As is shown in Figure 1 of the Loeffler Patent, the cradle is permanently open to the air through the openings in enclosure 2. (Ex. 6, at Fig. 1.)

136. I understand that the Court has construed the term "a cleaning fluid container" to mean "a container for holding cleaning fluid." In the Loeffler Patent, the cleaning device includes a spray can that holds a cleaning and sterilizing fluid. (Ex. 6, at col. 2, ll. 50-53.)

137. I understand that the Court's tentative construction requires that one or more claims include "a feed device for feeding cleaning fluid from said cleaning fluid container to said cradle structure." The Loeffler Patent discloses such a structure. "The spraying can 60 is at the top thereof provided with a conventional, depressible valve 75 having the usual spray opening 76 at one side thereof." (Ex. 6, at col. 2, l. 73 - col. 3, l. 2.)

138. I understand that the Court has construed the term "said cradle structure being arranged above a fluid level of the cleaning fluid in said cleaning fluid container during the feeding of said cleaning fluid to said cradle structure." As is shown in Figure 1 of the Loeffler Patent, prior to spraying the clipper head, the spray can is tilted downward. Thus, the level of sterilizing/cleaning fluid in the can would be below the cradle. (Ex. 6, at Fig. 1.) In addition, the Loeffler Patent discloses that over time

the amount of fluid in a particular spray can will decrease, and the spray can will need to be replaced. (Ex. 6, at col. 1, ll. 51-56.) Thus, in the Loeffler Patent, the level of fluid in the "cleaning fluid container" must be below the "cradle structure" at least some of the time.

Claim 18

139. I incorporate by reference my discussion of the elements common to both claim 11 and claim 18 from above.

140. Claim 18 recites "a bracket for insertion of the shaving apparatus therein." I understand that the Court has tentatively construed the term "bracket" to mean "a bracket or projecting support." As shown in Figures 1 and 2 of the Loeffler Patent, there is an opening in the top of enclosure 1 into which the shaving apparatus is inserted above the cradle for the shaver head. (Ex. 6, at Figs. 1 and 2.) This opening provides support for the shaving apparatus and functions as a "bracket." The opening is further illustrated as item 107 in Figure 2 of the '536 patent.

G. OBVIOUSNESS

141. I understand that a patent claim is invalid if what is claimed would have been obvious to one of ordinary skill in the art. I also understand that, to determine whether a patent claim is obvious, it is necessary to consider: (1) the scope and content of the prior art; (2) the differences between the prior art and the patent claims; (3) the level of ordinary skill in the art; and (4) the so-called secondary considerations of nonobviousness. I further understand that, in analyzing the question of obviousness, the person of

ordinary skill in the art is presumed to know all of the pertinent prior art. I also understand that there must be a motivation to combine references.

142. While I see very few differences (indeed, my opinion is that there are none) between the prior art and the asserted claims, if Braun attempts to assert any such differences, I reserve the right to consider and address such arguments. It is my opinion, however, that any such differences would have been obvious to one of ordinary skill in the art.

The '328 Patent

a. The MeKiney or Maatz Patents combined with the Davies Patent, U.S. Patent No. 4,480,394 ("Salas"), U.S. Patent No. 5,076,306 ("Suzuki"), or the ultrasonic shaver head cleaning system at Braun.

Claim 12

143. The only difference between claim 12 and both the MeKiney Patent and Maatz Patent cleaning systems is that there is no impeller. As a preliminary matter, one of ordinary skill in the art would have well understood that a fan could be used to speed drying without using a towel.

144. I have reviewed the deposition of Mr. Hoeser, Braun's designee on the topic of secondary considerations of nonobviousness. Mr. Hoeser referred to Braun's cleaning system as a "logical result." (Ex. 17, Hoeser Dep., at 55.) When pressed as to what he meant, Mr. Hoeser analogized the automatic dishwasher. (Ex. 17, Hoeser Dep., at 56.) Mr. Hoeser explained that it was "logical" to automate the process of washing and drying dishes by hand, and that analogy applied to Braun's cleaning

system. (Ex. 17, Hoeser Dep., at 56.) I agree with Mr. Hoeser, and particularly with respect to the use of a fan to dry an object after it has been washed. Simply, both a person of ordinary skill in the art and lay people encounter fan drying of washed objects on a regular basis.

145. Beyond Mr. Hoeser's analogy to dishwashers, both the MeKiney and Maatz patents cite dishwasher prior art. The cited art is U.S. Patent Nos. 1,979,504, 2,324,234, 2,681,658, and 3,267,944. Thus, a person of ordinary skill in the art would have been motivated to combine dishwasher art with either the MeKiney or Maatz patents.

146. Today, lay people are familiar with automatic dishwashers with a drying function. There are many ways in which drying can be accomplished. One example is the Suzuki Patent. The Suzuki Patent includes a fan 21, heater 13, heat exchanger 107, and associated ducting to form a "drying device" for the dishes after washing. (Ex. 32, at col. 2, l. 29.) The drying device of the Suzuki Patent operates much like the fan and heater in Mr. Smetana's memorandum discussed above. It is my opinion that claim 12 is obvious in light of the Maatz or MeKiney patents combined with the Suzuki Patent.[4]

147. In developing a shaver cleaning system, one of ordinary skill in the art would also be motivated to analyze other shaver cleaning systems and to combine advantageous features. Evidence of the preceding proposition is

[4] Likewise, even if the drain and siphon of Maatz and MeKiney were not "drying devices" (but they are), claim 11 of the '328 is obvious.

the student thesis of Mr. Zeischke written in 1991. (Ex. 31 ("the Zeischke thesis").) In Mr. Zeischke's thesis, he notes at the outset that he has reviewed numerous shaver cleaning systems in the art. This example illustrates that a person of ordinary skill in the art would be motivated to combine advantageous elements in shaver cleaning systems.

148. The Davies Patent itself anticipates many claims of the '328 patent including claims 11 and 12. However, even if Braun were to argue that Davies does not itself anticipate, one of ordinary skill in the art would be motivated to combine the Davies Patent with either the MeKiney Patent or the Maatz Patent. That is, for reasons expressed above, it would have been obvious to combine the blower (with an impeller) of the Davies Patent in the shaver cleaning systems of the MeKiney or Maatz patents.

149. From review of the testimony of Mr. Hoeser, I have learned that Braun has used an ultrasonic cleaning system for cleaning shaver heads since the early 1960s.[5] (Ex. 17, Hoeser Dep., at 30-33.) Mr. Hoeser stated that Braun purchased the ultrasonic cleaning device from an unidentified third party. (Ex. 17, Hoeser Dep., at 31-32.) This ultrasonic cleaning device was located approximately 60 feet from Mr. Braun's desk at Braun. (Ex. 17, Hoeser Dep., at 35.) Indeed, Mr. Braun has testified that he had seen the operation of the ultrasonic cleaning device. (Ex. 16, Braun Dep., at 79-80.)

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[5] I understand that Braun has not produced an documents regarding this ultrasonic cleaning device. To the extent that Braun does produce such documents, I reserve the right to review them and comment upon them.

150. The ultrasonic cleaning device consisted of a cleaning fluid container. (Ex. 17, Hoeser Dep., at 79.) A basket, which Mr. Hoeser classified as a "cradle," would hold dirty shaving heads of shavers. (Ex. 17, Hoeser Dep., at 79.) The basket with the shaver heads would be dipped into the cleaning fluid container and washed ultrasonically. (Ex. 17, Hoeser Dep., at 80.) Following washing, the basket would be removed from the cleaning fluid container, and the shaver heads would be dried with a blower. (Ex. 17, Hoeser Dep., at 80.) The idea of using a blower to speed the drying of a shaving head after cleaning did not originate with Braun.

151. I understand that the ultrasonic cleaning system is prior art to the '328 patent. For reasons expressed above, it would have been obvious to combine the blower (with an impeller) of Braun's ultrasonic cleaning system in the shaver cleaning systems of the McKiney or Maatz patents.

152. Finally, I have also reviewed U.S. Patent No. 4,480,394 ("Salas"). The Salas Patent was filed on March 29, 1983, and it issued as a patent on November 6, 1984. The Salas Patent discloses a system in which the shaver head of a wet razor is inserted into opening. (Ex. 33, at col. 1, l. 49.) There is a fan and a heater underneath the opening. (Ex. 33, at FIG. 2.) The fan and heater direct warm air to the opening to dry the shaver head. (Ex. 33, at col. 2, ll. 35-38.)

153. As discussed above, one of ordinary skill in the art would be motivated to combine prior art related to maintaining the hygiene of shaving apparatus. Against that background, claim 12 (and claim 11) would have been

obvious over the Maatz Patent or the MeKiney Patent in light of the Salas Patent.

154. It is thus my opinion that claim 12 of the '328 patent is at a minimum obvious. I have presented the combination of several patents to substantiate my opinion. However, the list of prior art cleaning systems employing a fan for drying could go on and on. Suffice it to say, blowers (and the like) were well known to one of ordinary skill in the art in 1995, and the use of blowers following the washing of an object was equally well known.

Claim 18

b. The MeKiney, Maatz, or Loeffler Patents combined with the Zeischke Thesis or the idea of Helmut Kraus.

155. As discussed above, it is my opinion that the MeKiney, Maatz, and Loeffler patents all anticipate claim 18 of the '328 patent. To the extent that Braun might argue that these patents do not disclose "a bracket for insertion of the shaver therein," that element would have been obvious in light of the MeKiney, Maatz, or Loeffler patents combined with the prior art.

156. As discussed above, the Zeischke Thesis itself suggests consideration of additional prior art patents. In his thesis, Mr. Zeischke proposed a cleaning system for shavers employing brushes and a vacuum. (Ex. 31, at 41.) Essentially, facial hair, dirt, etc. would be brushed and then sucked off the shaver head. In addition to the cleaning operation, Mr. Zeischke

proposed that his cleaning station would be used to charge the shaving apparatus as well. (Ex. 31, at 41-42.) To that end, items #6 and #8 of the schematics at pages 41 and 42 respectively are listed as "park positions" for shaver charging. The "park positions" constitute "brackets," as construed by the Court.

157. To a person of ordinary skill in the art equipped with the Zeischke Thesis and any of the MeKiney, Maatz, or Loeffler patents, it would have been at least obvious to use "brackets" in the liquid cleaning systems of any of the patents. From the Zeischke Thesis, it would be clear to a person of ordinary skill in the art that, in addition to cleaning, a shaver could also be charged in a cleaning system. Routine engineering would then result in a "bracket or projecting support" to hold the shaver in place while charging. While I believe that the MeKiney, Maatz, and Loeffler patents all have "brackets," it is thus my opinion that claim 18 is at least obvious.

158. Second, I understand that the instruction of Mr. Kraus regarding the interlock constitutes prior art. As discussed above, Mr. Kraus instructed Braun that an interlock was necessary so that a consumer could not remove a wet shaver while it was being charged. For reasons just discussed in connection with the Zeischke Thesis, if a person of ordinary skill in the art possessed the instruction of Mr. Kruas and any of the Maatz, MeKiney, or Loeffler patents, it would have been obvious and routine to add a "bracket" similar to what is shown in Figure 1 of the '328 patent. Indeed, Braun appears to have made the interlock a month after

Mr. Kraus' instruction, as indicated in Mr. Braun's internal invention application. This supports my obviousness opinion.

c. Secondary Considerations

159. I understand that Braun has asserted (1) long-felt need and (2) commercial success as secondary indicia of the nonobviousness of the asserted patent claims. (Ex. 27, Braun's Response to Rayovac Interrogatory No. 5.) I understand that the list of secondary indicia includes: (1) commercial success of the invention; (2) long felt need for the invention; (3) failure of others; (4) licenses to the invention; (5) copying; (6) unexpected results; and (7) skepticism by others. I further understand that, for commercial success to be relevant, Braun must demonstrate a nexus between the commercial success and the patented invention.

160. I have reviewed the deposition testimony of Mr. Hoeser, Braun's corporate designee on the topic of secondary considerations. Mr. Hoeser testified that, when the engineering and business heads of Braun's shaver department first heard about the shaver cleaning system, they both concluded that there was no need for such a product. (Ex. 17, Hoeser Dep., at 70.)[6]

161. It is also my opinion that there is no nexus between the alleged commercial success of Braun's products and the alleged inventions.

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[6] Braun's interrogatory response also indicates that it introduced the first shaver cleaning system that did not employ brushes or a shaking beaker. (Ex. 27, Braun's Response to Interrogatory No. 5.) Based upon the prior art discussed above, this is simply not true. Moreover, Mr. Hoeser testified that Philips introduced two shaver cleaning systems prior to Braun. (Ex. 17, Hoeser Dep., at 78-82.)

162. For the '328 patent, with respect to the commercial success, Mr. Hoeser testified that there is no nexus between the alleged commercial success of Braun's products and "the bracket." (Ex. 17, Hoeser Dep., at 53.) Mr. Hoeser also testified that there is no nexus between the alleged commercial success of Braun's products and the impeller. (Ex. 17, Hoeser Dep., at 53.) Indeed, Mr. Hoeser noted that, due to noise, the impeller is actually a detriment to the product. (Ex. 17, Hoeser Dep., at 113-14.) Braun currently sells a shaver cleaning system without an impeller or heater, casting further doubt on any allegation that there is a nexus between the "drying device" and the commercial success of Braun's products. (Ex. 17, Hoeser Dep., at 113-14.) In addition, Mr. Braun testified that there is no "magic" attributable to the location of the cleaning fluid container below the "cradle." (Ex. 16, Braun Dep., at 62.)

163. For the '556 patent, based upon the testimony of Mr. Hoeser, it appears that Braun's commercial products are not even covered by the asserted patent claims. I understand that the parties have agreed that all asserted claims of the '556 patent require that fluid be fed from the pump first to the filter and then to the "cradle." This particular fluid circuit is represented by Figure 6 in both of the patents-in-suit. (Ex. 17, Hoeser Dep., at 107.) When Mr. Hoeser began working on the Braun's shaver cleaning system, however, he rejected the fluid circuit of Mr. Braun and Dr. Pahl because of its disadvantages. (Ex. 17, Hoeser Dep., at 107.) To the extent that Braun has not abandoned its agreed position as to the scope

of the '556 patent, it is my opinion that there is no nexus between the alleged commercial success of Braun's products and the '556 patent.

164. I note that, when asked, Mr. Hoeser could identify no additional evidence that Braun would present on the issue of secondary indicia. (Ex. 17, Hoeser Dep., at 56.) I also note that Braun has admitted that there are no licenses to either of the patents-in-suit. (Ex. 27, Braun's Response to Interrogatory No. 10.)

165. I am aware of no evidence showing the failure of others, copying, unexpected results, or skepticism of others in the field. It is thus my opinion that no such evidence exists. To the extent that Braun attempts to introduce such evidence, I reserve the right to review and comment.

V. CONCLUSION

166. The opinions in this report are rendered on the basis of a reasonable degree of engineering certainty and are subject to modification and amendment as new information becomes available.

Dated: May 23, 2005

Samuel R. Phillips, PE